SEQUENCE LISTING

<110> Vinetz, Joseph M

<120> Plasmodium Sp. Chitinase

<130> 026.00101

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<150> US 60/136,508
<151> 1999-05-28

<150> US 60/180,051
<151> 2000-02-03

<160> 26

<170> PatentIn Ver. 2.1

<210> 1
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<212> DNA
<213> Plasmodium falciparum

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<210> 2
<211> 1764
<212> DNA
<213> Plasmodium gallinaceum

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aataaaactc atcaaacgga aatacatgag tctttttcac atcttaaatc gaataatagt 180
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<211> 378
<212> PRT
<213> Plasmodium falciparum

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Pro Gly Glu Ser Arg Lys Asn Pro Arg Glu Ile Ile Lys Thr Phe Lys
35 40 45

Glu Ser Gly Lys Gly Ile Ile Gln Gly Tyr Tyr Pro Ser Trp Val Ser
50 55 60

Tyr Asn His Asn Leu Lys Asp Leu Asn Pro Asn Leu Asn Val Val His
65 70 75 80

Met Ser Phe Ala Lys Met Asp Leu Ser Tyr Asp Ser Ile Glu Ser Ile
85 90 95

Val Gly Ser Pro Leu Leu Phe Lys Ser Leu Ile Gly Leu Glu Tyr Ile
100 105 110

Gly Leu Asn Glu Tyr Phe Asn Asp Ala Met Asn Leu Arg Lys Ala Arg
115 120 125

Pro Asp Ile Ile Met Leu Leu Ser Leu Gly Gly Glu Thr Tyr His Pro
130 135 140

Ser Ser Phe Asp Ser Ala Leu Asn Ala Val Glu Lys Ile Ala Asn Leu
145 150 155 160

Val Asp Glu Leu Gly Phe Asp Gly Ile Asp Val Asp Tyr Glu Pro Asn
165 170 175

Gly Ser Phe Asp Gly Leu Asn Asp Lys Glu Lys Ala Asp Phe Phe Val
180 185 190

Gln Tyr Val Thr Lys Leu Arg Glu Tyr Met Cys Asp Asp Lys Leu Ile
195 200 205

Ser Ile Ser Gln Ser Ser Asn Gly Ala Leu Ser Cys Ile Gly Phe Asn
210 215 220

Asp Pro Lys Lys Ile Cys Met Asp Asp Glu Ala Pro Tyr Asn Ser Lys
225 230 235 240

Tyr Phe Asn Lys Pro Asp Val Lys Lys Glu Leu Leu Arg Ala Ala Gln
245 250 255

Met Ala Ser Ala Gly Gly Ala Ile Tyr Leu Met Asn Asn Leu Lys Asp
260 265 270

Met Ile Asp Met Val Phe Val Gln Thr Phe Asn Tyr Thr Asn Ser Thr

275 280 285

Asp Ser Thr Val Met Lys Glu Leu Tyr Asp Ser Tyr Ala Tyr Tyr Gly
290 295 300

Lys Lys Tyr Asp Tyr Val Ile Ile Met Gly Phe Thr Leu Met Phe Pro
305 310 315 320

Ser Thr Pro Phe Asn Pro Asn Asp Lys Met Leu Val Lys Ser Ile Gly
325 330 335

Asp Phe Val Lys Thr Glu Asn Lys Leu Asn Lys Arg Ala Asp Gly Phe
340 345 350

Gly Leu Trp Ser Leu Ser Ser Asp Asn Ala Ala His Asn Glu Gln Leu
355 360 365

Ala Ile Glu Tyr Phe Val Glu Ser Leu His
370 375

<210> 4
<211> 587
<212> PRT
<213> Plasmodium gallinaceum

<400> 4
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20 25 30

Leu Gly Ile Ile Arg Glu Asn Lys Asn Lys Thr His Gln Thr Glu Ile
35 40 45

His Glu Ser Phe Ser His Leu Lys Ser Asn Asn Ser Asn Phe Val Glu
50 55 60

Tyr Gly Ser Tyr Cys Gly Asp Gly Cys Asn Ser Arg Ile Thr Lys Asn
65 70 75 80

Asn Lys Asn Ile Asn Lys Asn Asp Arg Lys Ser Pro Arg Gln Ile Leu
85 90 95

Glu Glu Tyr Lys Lys Arg Lys Gln Gly Ile Ile Ala Gly Tyr Tyr Gly
100 105 110

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Ser Trp Asn Ser Gln Gly Asp Arg Ala Lys His Met Ile Asp Ser Asn
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Pro Met Val Ser Ile Leu Tyr Ile Ala Phe Ala Arg Ile Asn Met Leu
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Tyr Asp Val Ser Arg Pro Phe Asn Gly Arg Gln Arg Phe Leu Leu Arg
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Lys His Gly Leu Glu Tyr Glu Thr Tyr Gly Met Met Leu Asn Glu Ile
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Arg Arg Ile Arg Lys Val Arg Pro Asp Val Ile Ile Leu Leu Ser Leu
            180                 185                 190

Gly Gly Glu Thr Tyr Met Ile Asp Ile Glu Lys Glu Ile Asp Tyr Val
        195                 200                 205

Asp Lys Ile Leu Lys Leu Val Asn Asp Phe Asp Leu Asp Gly Val Asp
    210                 215                 220

Ile Asp Trp Glu Pro His Gly Lys Phe Tyr Asn Leu Asn Glu Leu Asn
225                 230                 235                 240

Phe Ser Asn Tyr Tyr Ile Lys Leu Ile Asn Leu Leu Arg Lys Thr Ile
                245                 250                 255

Pro Glu Glu Lys Leu Ile Ser Ile Ser Gly Ser Ser Asn Ala Ala Leu
            260                 265                 270

Ser Cys Val Ser Gly Val Ala Ser Phe Cys Lys Asp Glu Glu Ser Pro
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Tyr Asn Thr Lys Phe Leu Ser Glu Gln Ile Glu Thr Asn Lys Glu Leu
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His Arg Ala Ala Ala Met Leu Ser Ala Gly Thr Phe Ile Asn Ile Phe
305                 310                 315                 320

Asn Thr Ala Lys Glu Lys Ile Asp Leu Val Phe Ile Gln Thr Tyr Asn
                325                 330                 335

Leu Glu Thr Thr Asn Pro Asp Ile Met Val Asp Met Tyr Leu Ser His
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Leu Tyr Phe Gly Leu Lys Tyr Asn Ile Thr Ile Ile Leu Gly Phe Ser
        355                 360                 365
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Leu Glu His Asn Arg Gly Gly Phe Ser Pro Glu Asn Lys Glu Leu Leu
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Glu Leu Val Gly Lys Thr Ile His Asp Lys Asn Gln Asn Asn Asn Arg
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Ala Asp Gly Ile Gly Ile Trp His Leu Phe Met Lys Glu Gln Leu Pro
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Thr Gly Ser Phe Asp Val Asp Ile Phe Leu Thr Asn Ile Trp Lys His
            420   425   430

Leu Asn Pro Glu Val Gln Thr Pro Lys Asp Leu Thr Ile Thr Glu Asn
        435   440   445

Pro Glu Asp Cys Ser Thr Ile Asp Glu Tyr Val Pro Gly Leu Val Ile
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Pro Thr Ile Gly Ile Tyr Tyr Lys His Asn Asp Ala Ile Trp Lys Thr
465   470   475   480

Arg Ser Tyr Ser Ile His Ala Pro Gly Val Asp Arg Tyr Glu Trp Asp
                485   490   495

Leu Val Lys Val Cys Tyr Glu Lys Ile Cys Asp Gly Lys Ala Ala His
            500   505   510

Tyr Tyr Asn Thr Asp Tyr Lys Glu Ser Ser Ile Ile Ile Trp Lys Gly
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Glu Pro Tyr Leu Ile Lys Trp Trp Gln Gln Gly Pro Pro Glu Gly Gln
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Ala Leu Glu Ser Tyr Thr Lys Leu Asp Ala Ser Lys Cys Pro Gly Ile
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Glu Glu Trp Asn Lys Lys Tyr Pro His Lys Pro Leu Glu Val Glu Glu
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Gln Tyr Glu Gln Glu Val Asp Leu Pro Leu Gln
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<211> 2500
<212> DNA
<213> Plasmodium gallinaceum

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tttttgtttt tttgttcttt tgttcttttg ttcttttgtt ctttttcttt tagcttccat 180
aattcttttc caatttttt gtttaatttg tttgtgcttg tatgttatct taatattacc 240
atttcaatta tagtagtata taattttata gaaaaatgaa ttttaaaata tcaatatttt 300
taattatagt atccatcttg tattctgcaa attccagaac cttgaaagga aaaaataata 360
taaataattc attgggaata atacgggaaa ataaaaataa aactcatcaa acggaaatac 420
atgagtcttt ttcacatctt aaatcgaata atagtaattt tgtagaatat ggatcttatt 480
gcggagatgg gtgtaactct agaattacaa aaaataataa aaatataaat aaaaatgata 540
gaaaatcacc aagacaaatt ttagaggagt ataaaaaaag gaaacaaggt attatagcag 600
gatactatgg ttcatggaac agtcaaggtg atagagcaaa acatatgatt gattcaaacc 660
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<212> PRT

<213> Plasmodium falciparum

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<210> 7
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

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<400> 7
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<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

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<220>
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<223> i

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<210> 9
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
primer sequence

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<220>
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<220>
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<400> 9
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<210> 10
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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primer sequence

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<210> 11
<211> 23

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

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<210> 12
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<212> DNA
<213> Artificial Sequence

<220>
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<210> 13
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<210> 14
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<212> DNA
<213> Plasmodium gallinaceum

<220>
<223> catalytic active site

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<210> 15
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
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<400> 15
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<210> 16
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 16
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<210> 17
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<212> PRT
<213> Plasmodium gallinaceum

<220>
<223> active site

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<210> 18
<211> 15
<212> PRT
<213> Plasmodium gallinaceum

<220>
<223> carboxyl terminus

<400> 18
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<210> 19
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

<400> 19
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<210> 20
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

<400> 20
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

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<210> 22
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

<400> 22
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<210> 23
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

<400> 23
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<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer sequence

<400> 24
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<210> 25
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<212> PRT
<213> Plasmodium falciparum

<220>
<223> consensus sequence of substrate-binding site

<400> 25
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1 5

<210> 26
<211> 15
<212> DNA
<213> Plasmodium falciparum

<400> 26
aataaatata taaac 15